#### E-01575A-15-0312

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### **ORIGINAL**

## Arizona Corporation Commis Utilities Complaint Form

Investigator: Michael Buck Phone: 602-364-1065 Opinion Date: 1/22/2016

Opinion Number: 2016 - 128484 Priority: Respond within business Alalys 06

Opinion Codes: Rate Case Items - Opposed Closed Date: 1/22/2016 9:39 AM

First Name: David Last Name: Pressler Account Name: David Constitution

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Division: Electric JAN 2 2 2016

**DOCKETED BY** 

Company: Sulphur Springs Valley Electric Cooperative, Division: Inc.

**Nature Of Opinion** 

Sulphur Springs Valley Electric Cooperative (SSVEC) management mailed a notice to its members announcing their intent to request an exemption from some of the Arizona Corporations Commission's (ACC) Net Metering rules. In this announcement they state that they "are pro-solar" but they feel that residential solar system owners are unfairly subsidized by non-solar SSVEC members. The notice gives examples of how important solar power is but then it talks about how individual solar system owners (the..."affluent member/customer") are installing their systems at the "expense of less affluent members/customers." The notice asserts that solar system owners are not paying their fair share for the costs of delivering power to their homes and are subsidized by the "less affluent".

As I understand it infrastructure extensions and expansion costs such as those resulting from the construction of new subdivisions are typically distributed across the entire rate base. Presumably all SSVEC members helped pay for these extensions whether they live in the effected area or not. If the peak power requirements of existing members were being met with the existing infrastructure then the cost associated with expanding the infrastructure capacity for additional homes becomes a shared cost born by all (i.e., subsidized by existing) SSVEC members.

Based on the information available in mailings and newspaper articles it is not clear how SSVEC calculated the cost of operating and maintaining the power distribution infrastructure. When making these calculations I believe that some important factors were not taken into consideration, such as reducing distribution loses, reducing peak power requirements, reducing fluctuations in solar power production, reducing health care costs, and investing in our children's future.

To say, as was stated in the 19 Apr 2015 front page article in the Sierra Vista Herald, that "...most people selling us [SSVEC] solar power are paying little or nothing for the use of the poles and wire and cost of operating and maintaining the system..." does not tell the complete story. It ignores the fact the SSVEC and its members have and continue to benefit from the use of homeowner purchased renewable energy sources.

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It glosses over the fact that solar and wind generation system owners invested considerable amounts of money in their systems that SSVEC claims credit for in meeting their REST goal. And it ignores other contributions and advantages provided by a distributed solar system.

Excess power generated by distributed solar systems is sold by SSVEC to nearby neighbors at retail rates. Distribution to nearby neighbors reduces energy losses due to inefficiencies of electrical power transmission from electricity production facilities to the home. "The US Energy Information Administration (EIA) estimates that national electricity transmission and distribution losses average about 6% of the electricity that is transmitted and distributed in the United States each year. [Based on average of losses from 1990 to 2012.]" Other estimates are higher, up to 8%. This wasted electricity is paid for by the consumer in higher electric billsand additional air pollution. Reducing waste through distributed generation and local distribution reduces costs to SSVEC for the power they sell to the nearby neighbors. It is a small but not insignificant savings from distributed systems that large solar arrays such as the Sonoita Substation solar array cannot provide.

Solar power collection that is distributed over a wide geographical area not only reduces transmission losses and provides power at peak demand times but reduces the likelihood that the scatter cloud cover common in Sierra Vista will reduce the overall system wide peak solar production at any one time. It will instead smoothout energy production by reducing the all- or-nothing effect of concentrated solar arrays.

There are other costs and benefits, both immediate and deferred, which have been left out of the calculations. Health care costs due to air pollutions (www.forbes .com) are estimated at\$886B a year, a cost that will increase sharply if we do not continue to develop ways of producing and using energy in ways that reduce emissions. At present we are passing these costs down to our children and our grandchildren. Obviously solar power generation reduces these emissions and distributed solar systems should, I believe, be part of the solution. The proposed rate structure reduces incentives to conserving energy (and the associated reduction in pollution).

Solar power is still in its infancy. Promoting individually purchased renewable energy system to attain short term goals (SSVEC meeting its 15% REST goal) then vilifying them because they do not meet SSVEC's current need is, in my opinion, counterproductive. Distributed renewable energy collection with some improvements brought about by phased in requirements changes to make them function more in harmony with a smarter grid seems to me to be a better solution then changing the rules to eliminate them altogether.

	Investia	ation	
David Pressler			
Dovid Procelor			

Date: Analyst: Submitted By: 1/22/2016 Michael Buck Telephone

Submitted By: Type:
Telephone Investigation

Entered for the record and docketed.

Respectfully,